REMARKS/ARGUMENTS

Reconsideration of the present application, as amended, is respectfully requested.

The December 15, 2004 Office Action and the Examiner's comments have been carefully considered. In response, claims are amended and remarks are set forth below in a sincere effort to place the present application in form for allowance. The amendments are supported by the application as originally filed. Therefore, no new matter is added.

PRIOR ART REJECTIONS

In the Office Action claims 1-3, 11-16 and 24-26 are rejected under 35 USC 103 as being unpatentable over USP 5,612,900 (Azadegan et al.). Claim 23 is rejected under 35 USC 103 as being unpatentable over Azadegan et al., and further in view of USP 4,924,387 (Jeppesen). Claims 1-7, 11-20 and 24-26 are rejected under 35 USC 103 as being unpatentable over USP 6,595,921 (Urbano et al.). Claims 8, 9, 21 and 22 are rejected under 35 USC 103 as being unpatentable over Urbano et al., and further in view of USP 5,971,923 (Finger et al.). Claims 10 and 23 are rejected under 35 USC 103 as being unpatentable over Urbano et al., and further in view of USP 6,514,201 (Greenberg).

PAGE 10/16 * RCVD AT 3/2/2005 3:22:19 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:+1 212 319 5101 * DURATION (mm-ss):04-00

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In response, independent claims 1 and 15 are amended to more clearly define the present claimed invention. Claim 1, as amended, is now directed to a medical imaging system, including a system clock for generating a synchronization signal, a medical imaging sub-system that procures a plurality of time domain images of internal structure within a patient during a medical diagnostic procedure being performed on the patient and digitally converts the time domain images to digitized time domain image data, and a sound recording sub-system that records, digitizes and time-stamps at least one channel of sound related to the time domain images in accordance with the synchronization signal. The sound recording sub-system indexes each channel of sound to "at least three events related to the medical diagnostic procedure or to operation of the imaging sub-system" to split the channel of sound, based on the events, into a plurality of digitized time-stamped audio data files which are synchronized with the time-stamped, digitized time domain image data.

Claim 15, as amended, is now directed to a method for obtaining imaging and sound information during a medical diagnostic procedure which includes the steps of performing the medical diagnostic procedure on a patient, procuring a plurality of time domain images of internal structure within the patient during the medical diagnostic procedure, digitizing the time-domain images and time-stamping the digitized time domain images

PAGE 11/16 * RCVD AT 3/2/2005 3:22:19 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:+1 212 319 5101 * DURATION (mm-ss):04-00

with a system synchronization signal, receiving at least one channel of sound related to the time domain images, digitizing and time-stamping the least one channel of sound with the system synchronization signal, and indexing the at least one channel of sound to at least three events related to the medical diagnostic procedure or to the procurement of the plurality of time domain images to split the at least one channel of sound, based on the events, into a plurality of digitized time-stamped audio data files which are synchronized with the digitized time-stamped time domain images.

As described in the specification at page 8, lines 4-17, in the present claimed invention, sound is recorded during a medical diagnostic procedure being performed on a patient (and which involves procuring images of various structures and organs within the patient's body, e.g., ultrasound images during an ultrasonic evaluation). The recorded audio stream is digitized and the digitized audio stream is split into a plurality of audio data files based on events occurring during the medical diagnostic procedure and which are related to the medical diagnostic procedure or to operation of the imaging sub-system. Formation of multiple files facilitates the indexing of the digitized audio stream to patient data and specific portions of the medical imaging procedure.

In order to form a plurality of files, at least three

PAGE 12/16 * RCVD AT 3/2/2005 3:22:19 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:+1 212 319 5101 * DURATION (mm-ss):04-00

"events" are needed, each file being defined at its beginning by one event and at its end by another event (with the end of one event possibly being the start of another event). For example, the start of a procedure is a first event and when the procedure is changed (a second event), a first audio file is created and indexed to the events. Upon occurrence of another event, such as the end of the procedure (a third event), a second audio file is created and indexed to the events. This can be recognized by following the flow chart shown in Fig. 2. Thus, each audio data file corresponds to a specific portion of the medical imaging procedure so that when images for that portion of the medical imaging procedure are displayed, the corresponding audio data file can be played.

Azadegan et al. and Urbano et al. do not disclose a medical imaging system including all of the features of claim 1 or a method for obtaining images and sound information during a medical diagnostic procedure including all of the features of claim 15.

Azadegan et al. describes a method for processing or editing video recordings during real-time recording or during playback. Azadegan et al. does not disclose a medical imaging sub-system that procures a plurality of time domain images of internal structure within a patient during a medical diagnostic procedure being performed on the patient. Rather, the imaging sub-system is

PAGE 13/16 * RCVD AT 3/2/2005 3:22:19 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:+1 212 319 5101 * DURATION (mm-ss):04-00

a basic video system which cannot generate images of internal structure within a patient.

Urbano et al. describes a method for storing a composite image as separate image components, one of which may be an audio component (col. 32, lines 7-10). The audio data may be recorded and digitized and then aligned with image data during re-formation of the composite image via a CPU 1560. (col. 34, lines 30-35).

In contrast to the present claimed invention, Urbano et al. does not disclose creating a plurality of audio data files to enable recorded audio data to be indexed to events related to the medical diagnostic procedure or image procurement. The CPU 1560, or any other component taught in Urbano et al., does not index the audio channel to at least three events related to the medical diagnostic procedure or to operation of the imaging sub-system which procures the images to split the audio channel, based on the events, into a plurality of digitized time-stamped audio data files which are synchronized with the time-stamped, digitized time domain image data. Rather, it appears that a single audio file (e.g., a WAV file) is created for the entire imaging procedure (see col. 34, lines 35-37) and time-aligned with the spectral image file during re-formation of the composite image.

In sum, Azadegan et al. and Urbano et al. do not disclose, teach or suggest creating multiple audio data files, each for a

PAGE 14/16 * RCVD AT 3/2/2005 3:22:19 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:+1 212 319 5101 * DURATION (mm-ss):04-00

particular portion of the medical imaging procedure and synchronized with image data, to enable visual and audio playback of only a desired portion of the procedure.

In view of the foregoing, independent claims 1 and 15 are patentable over Azadegan et al. and Urbano et al, under 35 USC §102 as well as 35 USC §103(a).

The other references of record do not close the gap between the present claimed invention as defined by claims 1 and 15 and Azadegan et al. and Urbano et al. Therefore, claims 1 and 15 are patentable over all of the references of record under 35 USC 102 as well as 35 USC 103.

Claims 2-14 and 16-26 are either directly or indirectly dependent on claim 1 or claim 15 and are patentable over the references of record in view of their dependence on claim 1 or claim 15 and because the references of record do not disclose, teach or suggest each of the limitations set forth in claims 2-14 and 16-26.

* *

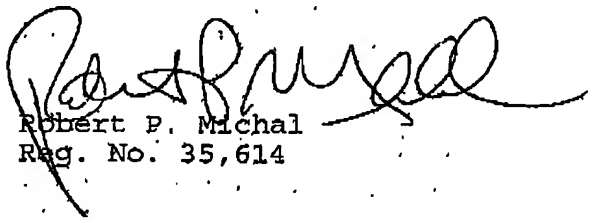
If the Examiner disagrees with any of the foregoing, the Examiner is respectfully requested to point out where there is support for a contrary view.

PAGE 15/16 * RCVD AT 3/2/2005 3:22:19 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:+1 212 319 5101 * DURATION (mm-ss):04-00

Entry of the amendment, allowance of the claims, and the passing of the application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,



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PAGE 16/16 * RCVD AT 3/2/2005 3:22:19 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/0 * DNIS:8729306 * CSID:+1 212 319 5101 * DURATION (mm-ss):04-00

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